

P26741.A08

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of

Docket No.: P26741

F. KNAUSEDER

Confirmation No.: 2541

Serial No.: 09/814,066

Group Art Unit: No. 3673

Filed: June 21, 2001

Examiner: M. Safavi

For: **FLOORING PANELS**

**APPEAL BRIEF UNDER 37 C.F.R. § 41.37**

Commissioner for Patents  
U.S. Patent and Trademark Office  
Customer Window, Mail Stop Appeal Brief-Patents  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314  
Sir:

This appeal is from the Examiner's final rejection of claims 1-3, 21-25 and 31-36 as set forth in the Final Office Action of September 22, 2005. A Notice of Appeal and a Request For Pre-Appeal Brief Review, in response to the September 22, 2005 Final Office Action, was filed on December 22, 2005.

A check in the amount of \$ 500.00 is being concurrently submitted as payment of the requisite fee under 37 C.F.R. 41.20(b)(2). No additional fee is believed to be required for filing the instant Appeal Brief. However, if for any reason a necessary fee is required for consideration of the instant paper, authorization is hereby given to charge the fee for the Appeal Brief and any necessary extension of time fees to Deposit Account No. 19-0089.

**TABLE OF CONTENTS**

<b>I</b>	<b>REAL PARTY IN INTEREST .....</b>	<b>Page 3.</b>
<b>II</b>	<b>RELATED APPEALS AND INTERFERENCES .....</b>	<b>Page 3.</b>
<b>III</b>	<b>STATUS OF CLAIMS .....</b>	<b>Page 3.</b>
<b>IV</b>	<b>STATUS OF THE AMENDMENTS.....</b>	<b>Page 3.</b>
<b>V</b>	<b>SUMMARY OF THE CLAIMED SUBJECT MATTER.....</b>	<b>Pages 3-6.</b>
<b>VI</b>	<b>GROUND OF REJECTION TO BE REVIEWED ON APPEAL ....</b>	<b>Pages 6-7.</b>
<b>VII</b>	<b>ARGUMENTS RE. § 103 REJECTIONS .....</b>	<b>Pages 7-43.</b>
<b>VIII</b>	<b>CONCLUSION .....</b>	<b>Page 44.</b>
	<b>CLAIMS APPENDIX .....</b>	<b>Pages 45-49.</b>
	<b>EVIDENCE APPENDIX .....</b>	<b>Page 50.</b>
	<b>RELATED PROCEEDINGS APPENDIX .....</b>	<b>Page 51.</b>

**(I) REAL PARTY IN INTEREST**

The real party in interest is M. Kaindl by an assignment recorded in the U.S. Patent and Trademark Office on March 22, 2001, at Reel 011629 and Frame 0843.

**(II) RELATED APPEALS AND INTERFERENCES**

No related appeals and/or interferences are pending.

**(III) STATUS OF THE CLAIMS**

Claims 1-36 are pending and claims 4-20 and 26-30 have been withdrawn by the Examiner. Claims 1-3, 21-25 and 31-36 stand finally rejected and are in issue in this appeal. A copy of the claims in issue is attached in the "Claims Appendix".

**(IV) STATUS OF THE AMENDMENTS**

A Response under 37 C.F.R. § 1.116 was filed November 22, 2005, requesting reconsideration of the finally rejected claims. The Examiner responded with an Advisory Action mailed December 13, 2005, indicating that the Response was considered, but did not place the application in condition for allowance. Appellant submits that no other amendments after final have been filed; however, all amendments to the claims have been entered.

**(V) SUMMARY OF THE CLAIMED SUBJECT MATTER**

**A. The Claimed Subject Matter**

**1. INDEPENDENT CLAIM 1**

With reference to paragraphs [0010] – [0062] of the instant published application 2002/0046526 and to the figures, and by way of non-limiting example, the invention

P26741.A08

provides for a configuration for combining flat structural components (panels 1 and 2) of relatively low thickness along their narrow circumferential sides (see paragraph [0012] of the instant published application 2002/0046526), where connecting members (tongue 6 and groove 5) that interact on the tongue-and-groove principle are provided at the areas being connected, and the sides (9) of the groove (5) diverge from a groove base (10) and converge (via tapered portions 8) at an end away from the groove base (10) at an angle that is greater than an angle of divergence (see paragraph [0014] of the instant published application 2002/0046526). An opening width (defined by the width between edges 25) of the groove (5) is greater than a foremost area of the tongue (6) in a direction of insertion. The tongue (6) exhibits wedge-shaped areas (tapered sides 11) that diverge from front to back at the same angle as the sides (9) of the groove (5), each of which wedge-shaped areas (11) exhibits an undercut (the recesses formed by tapered portions 17) in a back area of the tongue (6) that conforms to the groove (5) cross-section, while the undercut's borders, adjoining the wedge-shaped areas (11), converge at the same angle as the groove sides (9) toward a connecting bridge (the portion of the tongue 6 between the recesses formed by tapered portions 17). A locking mechanism (one or more of the recesses formed by tapered portions 17 locking with one or more of the edges 25) is integrated into the tongue (6) and the groove (5), wherein a pre-applied adhesive layer (20), or a pre-applied layer of a substance (20) which activates an adhesive, is applied off-site (see paragraphs [0022] and [0023] of the instant published application 2002/0046526) and is present on the groove (5) at least in the area of its divergent sides (9) or on the tongue (6) at least in

the area of its divergent wedge-shaped area (11), or on both areas (9 and 11).

## **2. INDEPENDENT CLAIM 31**

With reference to paragraphs [0010] – [0062] of the instant published application 2002/0046526 and to the figures, and by way of non-limiting example, the invention provides for a configuration for combining flat structural panels (panels 1 and 2), comprising: a first panel (1) having a groove (5) comprising a groove opening (the space between edges 25), a groove base (10), at least one locking element (8), and divergent sides (9) extending from the groove base (10) and a second panel (2) having a tongue (6) comprising a divergent wedge shape (defined by tapered sides 11) and at least one locking element (17) which interacts with the at least one locking element (8) of the groove (5) when the first panel (1) and the second panel (2) are joined by inserting the tongue (6) into the groove (5). A pre-applied first layer (20) is arranged on at least one surface of the groove (5) at least in an area of the divergent sides (9) and a pre-applied second layer (20) arranged on at least one surface (11) of the tongue (6) at least in an area of the divergent wedge shape (see Figs. 1B and 2B). Each of the pre-applied first and second layers (20) comprises an adhesive layer or a pre-applied layer of a substance which activates an adhesive (see paragraphs [0022] and [0023] of the instant published application 2002/0046526).

## **3. INDEPENDENT CLAIM 34**

With reference to paragraphs [0010] – [0062] of the instant published application 2002/0046526 and to the figures, and by way of non-limiting example, the invention provides for a configuration for combining flat structural panels (panels 1 and 2),

comprising a first panel (1) having a groove (5) comprising a groove opening (the space between edges 25), a groove base (10), at least one locking element (8), and divergent sides (9) extending from the groove base (10), a second panel (2) having a tongue (6) comprising a divergent wedge shape (see Figs. 1-4) and at least one locking element (17) which interacts with the at least one locking element (8) of the groove (5) when the first panel (1) and the second panel (2) are joined by inserting the tongue (6) into the groove (5). A pre-applied first layer (20) is arranged on at least one surface (9) of the groove (5) at least in an area of the divergent sides (9) and a pre-applied second layer (20) arranged on at least one surface (11) of the tongue (6) at least in an area of the divergent wedge shape (formed by tapered sides 11). Each of the pre-applied first and second layers (20) comprises an adhesive layer or a pre-applied layer of a substance which activates an adhesive (see paragraphs [0022] and [0023] of the instant published application 2002/0046526).

**(VI) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

**Whether claims 1-3, 21-25 and 31-35 are improperly rejected under 35 U.S.C. § 103(a) as being unpatentable over AT 405 560 in view of DE 297 03 962 when considering any of U.S. Patent No. 5,323,584 issued to SCARLETT, U.S. Patent No. 4,195,462 issued to KELLER et al., or U.S. Patent No. 5,899,251 issued to TURNER.**

**Whether claims 1-3, 21-25 and 31-36 are improperly rejected under 35 U.S.C. § 103(a) as being unpatentable over AT 405 560 in view of DE 297 03 962 when considering any of U.S. Patent No. 5,323,584 issued to SCARLETT, U.S. Patent No. 4,195,462 issued to KELLER et al., or U.S. Patent No. 5,899,251 issued to TURNER, and further in view of U.S. Patent No. 6,004,417 issued to ROESCH et al.**

**Whether claims 32, 33 and 35 are improperly rejected under 35 U.S.C. § 103(a) as being unpatentable over AT 405 560 in view of DE 297 03 962**

when considering any of U.S. Patent No. 5,323,584 issued to SCARLETT and U.S. Patent No. 4,195,462 issued to KELLER et al., and further in view of any of U.S. Patent No. 6,398,902 issued to ROBINS et al., U.S. Patent No. 5,678,715 issued to SJOSTEDT et al., U.S. Patent No. 5,165,826 issued to PARASIN, and U.S. Patent No. 5,157,892 issued to RYTHER.

Whether claims 32, 33 and 35 are improperly rejected under 35 U.S.C. § 103(a) as being unpatentable over AT 405 560 in view of DE 297 03 962 when considering any of U.S. Patent No. 5,323,584 issued to SCARLETT and U.S. Patent No. 4,195,462 issued to KELLER et al., U.S. Patent No. 5,899,251 issued to TURNER, and further in view of U.S. Patent No. 6,004,417 issued to ROESCH et al., and further in view of any of U.S. Patent No. 6,398,902 issued to ROBINS et al., U.S. Patent No. 5,678,715 issued to SJOSTEDT et al., U.S. Patent No. 5,165,826 issued to PARASIN, and U.S. Patent No. 5,157,892 issued to RYTHER.

#### **(VII) ARGUMENT RE. 103(a) REJECTIONS**

##### **REJECTION OF INDEPENDENT CLAIM 1 UNDER 35 U.S.C. § 103 IS IN ERROR**

The rejection of claim 1 under 35 U.S.C. § 103(a) as being unpatentable over AT '560 in view of DE '962 when considering any of SCARLETT, KELLER and TURNER is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

The additional rejection of claim 1 under 35 U.S.C. § 103(a) as being unpatentable over AT '560 in view of DE '962 when considering any of SCARLETT, KELLER and TURNER, and further in view of ROESCH is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

Independent claim 1 recites a configuration for combining flat structural components which utilizes the combination of a tongue and groove connection wherein

P26741.A08

both the tongue and groove have divergent sides and integrated locking mechanisms and which also includes a pre-applied adhesive layer or a pre-applied layer of a substance which activates adhesive is applied off-site and is present on the groove at least in the area of its divergent sides or on the tongue at least in the area of its divergent wedge-shaped area, or on both areas.

The Examiner acknowledges that AT '560 lacks the recited adhesive between the tongue and groove joints, but explains that DE '962 teaches the use of a contact adhesive in a tongue and groove joint to establish a secure engagement between the panels (see page 3 of Final Office Action). The Examiner further asserts that each of SCARLETT, KELLER and TURNER disclose the "application of an adhesive upon or within a locking joint between structural members" and, as a result of these teachings, that it would have been obvious "[t]o have provided the floor tile assembly of [AT '560] with adhesive between and within the tongue and groove joints." Finally, the Examiner cites ROESCH for its disclosure of a two-component adhesive.

Appellant respectfully disagrees that the asserted combination of these documents discloses or suggests the combination of features recited in claim 1. Appellant does not dispute that DE '962 apparently teaches a tongue and groove connection between panels as well as the factory application of glue to adjoining areas, and that AT '560 teaches a tongue and groove with locking mechanisms. However, the Examiner has failed to appreciate that the factory application of an adhesive is not a *per se* disclosure of a pre-applied adhesive or pre-applied substance because, as will be



P26741.A08

explained below, a pre-applied adhesive or substance is a type of adhesive or substance that is simply not disclosed or suggested by the applied documents.

The Examiner has also ignored the noted deficiencies of these documents. For example, AT '560 does not teach the use of any adhesive in a locking tongue and groove joint. Moreover, DE '962 merely discloses a contact glue which requires that the mating surfaces "be pressed together with a considerable degree of pressure, making it impossible to additionally adjust the glued joint in the longitudinal direction for the purpose of closing a transverse joint." Thus, even if these documents were properly combinable (which Appellant disputes) they would nevertheless not disclose or suggest the unique combination of three features in the connection of flat structural panels: that is, (1) a tongue and groove connection with divergent sides; (2) that both the tongue and the groove have a locking mechanisms or elements; and (3) that either the tongue, or the groove, or both of these devices, have a pre-applied adhesive or an adhesive substance as defined above.

Appellant emphasizes that the application of the adhesive or the substance at least to corresponding divergent surfaces of the tongue and groove and connecting the tongue and groove, causes the tongue to become bonded to the groove by virtue of the divergent surfaces being pushed and remaining in tension. This ensures an especially reliable bonding of the connection. Furthermore, because of the substance placement and the use of the locking elements, the arrangement is such that locking elements help ensure that the substance on the divergent sides cannot come up and out of the connection onto the surface of the panels. Thus, the locking elements act as a locking

device and as a device which prevents the spilling out of the adhesive substance. The pre-application of the adhesive or substance at least on the divergent sides also ensures it does not find its way into the locking elements – thereby ensuring a totally flat surface in the area of the connection of the panels.

Nor would any proper combination of these documents recognize the numerous benefits noted above and even achieve an automatically secure connection between flat structural panels. For example, the paragraph bridging pages 4 and 5 of the instant specification specifically explains the benefits of this connection as, among other things, reducing the amount of "maneuvers and manual stages involved in laying out the panels on site". Other noted benefits of pre-applying the substance include: (i) ensuring that a sufficient but not excessive amount of adhesive is used in the connection, (ii) eliminating the problem of glue setting during installation, (iii) providing a seamless joint, and (iv) eliminating the possibility of a welling out of the substance which typically occurs when a glue is applied on site and which can form spots on the surface that must be removed immediately.

Appellant also disputes the relevancy of each of SCARLETT, KELLER, TURNER, or ROESCH, as these documents are completely silent with regard to a pre-applied adhesive layer or activator substance.

SCARLETT, for example, discloses the use of an adhesive joint between different portions of a structural beam. While this document discloses the use of a locking joint which is secured with adhesive, the Examiner has failed to appreciate that SCARLETT does not disclose the use of a pre-applied adhesive. SCARLETT, instead

P26741.A08

teaches using an adhesive which is applied at the time of assembly and which has the problem of a welling of adhesive during the closing of the joint (see col. 6, lines 24-28).

KELLER similarly discloses the use of an adhesive joint between different portions of a structural beam. While this document also discloses the use of a locking joint which is secured with adhesive, the Examiner has failed to appreciate that KELLER does not disclose the use of a pre-applied adhesive. KELLER, instead merely teaches coating the tongue and groove prior to their being joined with "a suitable adhesive" (see col. 2, lines 53-55).

TURNER merely discloses the use of an adhesive joint between wood members. While this document also discloses the use of a locking joint which is secured with adhesive, the Examiner has failed to appreciate that TURNER does not disclose the use of a pre-applied adhesive. TURNER, instead merely teaches applying "a suitable adhesive ... to both the abutment surfaces and the pieces of machined timber slidably engaged." See col. 4, lines 64-67.

Finally, ROESCH is non-analogous art. Whereas the invention relates to flat structural components or panels using a tongue and groove locking connection having a pre-applied adhesive or adhesive activator, ROESCH relates to a connection between plastic pipe parts which can be pre-applied with an adhesive (see Fig. 3).

In the Advisory Action, the Examiner essentially explains that the term "pre-applied adhesive" does not distinguish the claims over the applied documents because this term relates to when an adhesive is applied and not to the type of adhesive. Appellant respectfully disagrees. As explained in the Rule 1.116 Response filed on

P26741.A08

November 22, 2005, pre-applied adhesives or pre-applied adhesive activator substances are terms of art whose meaning is well known to those having ordinary skill in the art of adhesives. Such features are clearly structural and cannot properly be argued to be non-limiting method limitations.

Appellant refers the Board to U.S. Patent No. 4,417,028 to AZEVEDO (a copy of which was attached to the Rule 1.116 Response) which contains an accurate description of such substances. Such substances are typically stable compositions which are prepared and pre-applied to "surfaces prior to the time of assembly, which will remain on the parts during normal storage and shipment, and which will cure upon mating with another part thereby imparting an effective and improved seal or bond." See col. 1, lines 56-68 of AZEVDO. Such substance also typically ensure that the pre-applied parts "can then be shipped or stored for substantial periods of time prior to cure" and are "dry to the touch. Finally, such substances may also have the attribute that "when crushed or ground by a mating surface, cures to a strong bond" (see col. 2, lines 1-22 of AZEVDO). Indeed, these properties, as well as other properties, are specifically acknowledged and noted on pages 5-14 of the instant specification in discussing examples of the types of substances which can be utilized in the invention.

Because the combination of the above-noted documents fails to disclose, or even suggest, at least the above-noted features of the instant invention, Appellant submits that no proper combination of these documents renders unpatentable the combination of features recited in at least independent claim 1.

**REJECTION OF INDEPENDENT CLAIM 31 UNDER 35 U.S.C. § 103 IS IN ERROR**

The rejection of claim 31 under 35 U.S.C. § 103(a) as being unpatentable over AT '560 in view of DE '962 when considering any of SCARLETT, KELLER and TURNER is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

The additional rejection of claim 31 under 35 U.S.C. § 103(a) as being unpatentable over AT '560 in view of DE '962 when considering any of SCARLETT, KELLER and TURNER, and further in view of ROESCH is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

Independent claim 31 similarly recites the combination of a tongue and groove connection wherein both the tongue and groove have divergent sides and locking elements and also includes a pre-applied adhesive layer or pre-applied substance which activates an adhesive applied off-site and being present on the groove at least in the area of the divergent sides or on the tongue at least in the area of the divergent wedge-shaped area, or on both areas.

The Examiner acknowledges that AT '560 lacks the recited adhesive between the tongue and groove joints, but explains that DE '962 teaches the use of a contact adhesive in a tongue and groove joint to establish a secure engagement between the panels (see page 3 of Final Office Action). The Examiner further asserts that each of SCARLETT, KELLER and TURNER disclose the "application of an adhesive upon or within a locking joint between structural members" and, as a result of these teachings,

P26741.A08

that it would have been obvious "[t]o have provided the floor tile assembly of [AT '560] with adhesive between and within the tongue and groove joints." Finally, the Examiner cites ROESCH for its disclosure of a two-component adhesive.

Appellant respectfully disagrees that the asserted combination of these documents discloses or suggests the combination of features recited in claim 31 for reasons that are similar to those noted above with regard to claim 1.

Again, the Examiner has ignored the noted deficiencies of these documents. For example, AT '560 does not teach the use of any adhesive in a locking tongue and groove joint. Moreover, DE '962 merely discloses a contact glue which requires that the mating surfaces "be pressed together with a considerable degree of pressure, making it impossible to additionally adjust the glued joint in the longitudinal direction for the purpose of closing a transverse joint." Thus, even if these documents were properly combinable (which Appellant disputes) they would nevertheless not disclose or suggest the unique combination of three features in the connection of flat structural panels: that is, (1) a tongue and groove connection with divergent sides; (2) that both the tongue and the groove have a locking mechanisms or elements; and (3) that either the tongue, or the groove, or both of these devices, have a pre-applied adhesive or an adhesive substance as defined above.

Appellant emphasizes that the application of the adhesive or the substance at least to corresponding divergent surfaces of the tongue and groove and connecting the tongue and groove, causes the tongue becomes bonded to the groove by virtue of the divergent surfaces being pushed and remaining in tension. This ensures an especially

P26741.A08

reliable bonding of the connection. Furthermore, because of the substance placement and the use of the locking elements, the arrangement is such that locking elements help ensure that the substance on the divergent sides cannot come up and out of the connection onto the surface of the panels. Thus, the locking elements act as a locking device and as a device which prevents the spilling out of the adhesive substance. The pre-application of the adhesive or substance at least on the divergent sides also ensures it does not find its way into the locking elements – thereby ensuring a totally flat surface in the area of the connection of the panels.

Appellant also disputes the relevancy of each of SCARLETT, KELLER, TURNER, or ROESCH, as these documents are completely silent with regard to a pre-applied adhesive layer or activator substance.

SCARLETT, for example, discloses the use of an adhesive joint between different portions of a structural beam. While this document discloses the use of a locking joint which is secured with adhesive, the Examiner has failed to appreciate that SCARLETT does not disclose the use of a pre-applied adhesive. SCARLETT, instead teaches using an adhesive which is applied at the time of assembly and which has the problem of a welling of adhesive during the closing of the joint (see col. 6, lines 24-28).

KELLER similarly discloses the use of an adhesive joint between different portions of a structural beam. While this document also discloses the use of a locking joint which is secured with adhesive, the Examiner has failed to appreciate that KELLER does not disclose the use of a pre-applied adhesive. KELLER, instead merely

P26741.A08

teaches coating the tongue and groove prior to their being joined with "a suitable adhesive" (see col. 2, lines 53-55).

TURNER merely discloses the use of an adhesive joint between wood members.

While this document also discloses the use of a locking joint which is secured with adhesive, the Examiner has failed to appreciate that TURNER does not disclose the use of a pre-applied adhesive. TURNER, instead merely teaches applying "a suitable adhesive ... to both the abutment surfaces and the pieces of machined timber slidably engaged." See col. 4, lines 64-67.

Finally, ROESCH is non-analogous art. Whereas the invention relates to flat structural components or panels using a tongue and groove locking connection having a pre-applied adhesive or adhesive activator, ROESCH relates to a connection between plastic pipe parts which can be pre-applied with an adhesive (see Fig. 3).

Because the combination of the above-noted documents fails to disclose, or even suggest, at least the above-noted features of the instant invention, Appellant submits that no proper combination of these documents renders unpatentable the combination of features recited in at least independent claim 31.

**REJECTION OF INDEPENDENT CLAIM 34 UNDER 35 U.S.C. § 103 IS IN ERROR**

The rejection of claim 34 under 35 U.S.C. § 103(a) as being unpatentable over AT '560 in view of DE '962 when considering any of SCARLETT, KELLER and TURNER is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

The additional rejection of claim 34 under 35 U.S.C. § 103(a) as being



P26741.A08

unpatentable over AT '560 in view of DE '962 when considering any of SCARLETT, KELLER and TURNER, and further in view of ROESCH is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

Independent claim 34 similarly recites similarly recites the combination of a tongue and groove connection wherein both the tongue and groove have divergent sides and locking elements and additionally includes a pre-applied first layer arranged on at least one surface of the groove at least in an area of the divergent sides and a pre-applied second layer arranged on at least one surface of the tongue at least in an area of the divergent wedge shape, wherein each of the pre-applied first and second layers comprises an adhesive layer or a pre-applied layer of a substance which activates an adhesive.

The Examiner acknowledges that AT '560 lacks the recited adhesive between the tongue and groove joints, but explains that DE '962 teaches the use of a contact adhesive in a tongue and groove joint to establish a secure engagement between the panels (see page 3 of Final Office Action). The Examiner further asserts that each of SCARLETT, KELLER and TURNER disclose the "application of an adhesive upon or within a locking joint between structural members" and, as a result of these teachings, that it would have been obvious "[t]o have provided the floor tile assembly of [AT '560] with adhesive between and within the tongue and groove joints." Finally, the Examiner cites ROESCH for its disclosure of a two-component adhesive.

Appellant respectfully disagrees that the asserted combination of these documents discloses or suggests the combination of features recited in claim 34 for reasons that are similar to those noted above with regard to claim 1.

Again, the Examiner has also ignored the noted deficiencies of these documents. For example, AT '560 does not teach the use of any adhesive in a locking tongue and groove joint. Moreover, DE '962 merely discloses a contact glue which requires that the mating surfaces "be pressed together with a considerable degree of pressure, making it impossible to additionally adjust the glued joint in the longitudinal direction for the purpose of closing a transverse joint." Thus, even if these documents were properly combinable (which Appellant disputes) they would nevertheless not disclose or suggest the unique combination of three features in the connection of flat structural panels: that is, (1) a tongue and groove connection with divergent sides; (2) that both the tongue and the groove have a locking mechanisms or elements; and (3) that either the tongue, or the groove, or both of these devices, have a pre-applied adhesive or an adhesive substance as defined above.

Appellant emphasizes that the application of the adhesive or the substance at least to corresponding divergent surfaces of the tongue and groove and connecting the tongue and groove, causes the tongue becomes bonded to the groove by virtue of the divergent surfaces being pushed and remaining in tension. This ensures an especially reliable bonding of the connection. Furthermore, because of the substance placement and the use of the locking elements, the arrangement is such that locking elements help ensure that the substance on the divergent sides cannot come up and out of the

connection onto the surface of the panels. Thus, the locking elements act as a locking device and as a device which prevents the spilling out of the adhesive substance. The pre-application of the adhesive or substance at least on the divergent sides also ensures it does not find its way into the locking elements – thereby ensuring a totally flat surface in the area of the connection of the panels.

Appellant also disputes the relevancy of each of SCARLETT, KELLER, TURNER, or ROESCH, as these documents are completely silent with regard to a pre-applied adhesive layer or activator substance.

SCARLETT, for example, discloses the use of an adhesive joint between different portions of a structural beam. While this document discloses the use of a locking joint which is secured with adhesive, the Examiner has failed to appreciate that SCARLETT does not disclose the use of a pre-applied adhesive. SCARLETT, instead teaches using an adhesive which is applied at the time of assembly and which has the problem of a welling of adhesive during the closing of the joint (see col. 6, lines 24-28).

KELLER similarly discloses the use of an adhesive joint between different portions of a structural beam. While this document also discloses the use of a locking joint which is secured with adhesive, the Examiner has failed to appreciate that KELLER does not disclose the use of a pre-applied adhesive. KELLER, instead merely teaches coating the tongue and groove prior to their being joined with "a suitable adhesive" (see col. 2, lines 53-55).

TURNER merely discloses the use of an adhesive joint between wood members. While this document also discloses the use of a locking joint which is secured with

P26741.A08

adhesive, the Examiner has failed to appreciate that TURNER does not disclose the use of a pre-applied adhesive. TURNER, instead merely teaches applying "a suitable adhesive ... to both the abutment surfaces and the pieces of machined timber slidably engaged." See col. 4, lines 64-67.

Finally, ROESCH is non-analogous art. Whereas the invention relates to flat structural components or panels using a tongue and groove locking connection having a pre-applied adhesive or adhesive activator, ROESCH relates to a connection between plastic pipe parts which can be pre-applied with an adhesive (see Fig. 3).

Because the combination of the above-noted documents fails to disclose, or even suggest, at least the above-noted features of the instant invention, Appellant submits that no proper combination of these documents renders unpatentable the combination of features recited in at least independent claim 34.

**REJECTION OF DEPENDENT CLAIM 3 UNDER 35 U.S.C. § 103 IS IN ERROR**

The rejection of claim 3 under 35 U.S.C. § 103(a) as being unpatentable over AT '560 in view of DE '962 when considering any of SCARLETT, KELLER and TURNER is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

The additional rejection of claim 3 under 35 U.S.C. § 103(a) as being unpatentable over AT '560 in view of DE '962 when considering any of SCARLETT, KELLER and TURNER, and further in view of ROESCH is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

Claim 3 recites the configuration of claim 1 and wherein the grooves of the individual panels are provided with a filling, coating, covering or strand, comprising a latent adhesive material that becomes active after appropriate activation, and the tongues are provided with a coating or surface impregnation, a covering or strand is applied to the panels and moistens them shortly before they are joined together and comprises an activator which induces adhesion. No proper combination of the above-noted documents discloses or suggests these additional features.

On page 3 of the Final Office Action, the Examiner explains that the language of claim 3 is "directed to a process" and implies that he may therefore properly disregard the recited features of claim 3.

Appellant submits that the Examiner is not free to disregard the claim language and that claim 3 is not a process claim. Claim 3 clearly recites structural features and the Examiner has not demonstrated otherwise.

Furthermore, as the Examiner has failed to identify any one or more of the recited features in the applied documents, Appellant submits that the Examiner has failed to establish a *prima facie* case of obviousness.

Finally, Appellant submits that none of the above-noted applied documents discloses or suggests that the grooves of the individual panels are provided with a filling, coating, covering or strand, comprising a latent adhesive material that becomes active after appropriate activation, and the tongues are provided with a coating or surface impregnation, a covering or strand is applied to the panels and moistens them shortly before they are joined together and comprises an activator which induces

adhesion.

Again, the Examiner has acknowledged that AT '560 lacks the recited adhesive between the tongue and groove joints.

While Appellant does not dispute that DE '962 apparently teaches a tongue and groove connection between panels as well as the factory application of glue to adjoining areas, the Examiner has failed to appreciate that the factory application of an adhesive is not a *per se* disclosure of a pre-applied adhesive or pre-applied substance because, as will be explained below, a pre-applied adhesive or substance is a type of adhesive or substance that is simply not disclosed or suggested by the applied documents.

The Examiner has also ignored the noted deficiencies of these documents. As explained above, AT '560 does not teach the use of any adhesive in a locking tongue and groove joint. Moreover, DE '962 merely discloses a contact glue which requires that the mating surfaces "be pressed together with a considerable degree of pressure, making it impossible to additionally adjust the glued joint in the longitudinal direction for the purpose of closing a transverse joint." Thus, even if these documents were properly combinable (which Appellant disputes) they would nevertheless not disclose or suggest the unique combination of three features in the connection of flat structural panels: that is, (1) a tongue and groove connection with divergent sides; (2) that both the tongue and the groove have a locking mechanisms or elements; and (3) that either the tongue, or the groove, or both of these devices, have a pre-applied adhesive or an adhesive substance as defined above.

Appellant also disputes the relevancy of each of SCARLETT, KELLER, TURNER, or ROESCH, as these documents are completely silent with regard to a pre-applied adhesive layer or activator substance.

SCARLETT, for example, discloses the use of an adhesive joint between different portions of a structural beam. While this document discloses the use of a locking joint which is secured with adhesive, the Examiner has failed to appreciate that SCARLETT does not disclose the use of a pre-applied adhesive. SCARLETT, instead teaches using an adhesive which is applied at the time of assembly and which has the problem of a welling of adhesive during the closing of the joint (see col. 6, lines 24-28).

KELLER similarly discloses the use of an adhesive joint between different portions of a structural beam. While this document also discloses the use of a locking joint which is secured with adhesive, the Examiner has failed to appreciate that KELLER does not disclose the use of a pre-applied adhesive. KELLER, instead merely teaches coating the tongue and groove prior to their being joined with "a suitable adhesive" (see col. 2, lines 53-55).

TURNER merely discloses the use of an adhesive joint between wood members. While this document also discloses the use of a locking joint which is secured with adhesive, the Examiner has failed to appreciate that TURNER does not disclose the use of a pre-applied adhesive. TURNER, instead merely teaches applying "a suitable adhesive ... to both the abutment surfaces and the pieces of machined timber slidably engaged." See col. 4, lines 64-67.

Finally, ROESCH is non-analogous art. Whereas the invention relates to flat structural components or panels using a tongue and groove locking connection having a pre-applied adhesive or adhesive activator, ROESCH relates to a connection between plastic pipe parts which can be pre-applied with an adhesive (see Fig. 3).

Because the combination of the above-noted documents fails to disclose, or even suggest, at least the above-noted features of the instant invention, Appellant submits that no proper combination of these documents renders unpatentable the combination of features recited in at least dependent claim 3.

**REJECTION OF DEPENDENT CLAIM 25 UNDER 35 U.S.C. § 103 IS IN ERROR**

The rejection of claim 25 under 35 U.S.C. § 103(a) as being unpatentable over AT '560 in view of DE '962 when considering any of SCARLETT, KELLER and TURNER is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

The additional rejection of claim 25 under 35 U.S.C. § 103(a) as being unpatentable over AT '560 in view of DE '962 when considering any of SCARLETT, KELLER and TURNER, and further in view of ROESCH is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

Claim 25 recites the configuration of claim 3 and wherein at least one of lateral groove areas of the grooves are provided with the filling, coating, covering or strand and at least one of the sides of the tongues are provided with the coating or surface



P26741.A08

impregnation. No proper combination of the above-noted documents discloses or suggests these additional features.

On page 4 of the Final Office Action, the Examiner opines that the panels which would result from the asserted combination of the prior art teachings would disclose or suggest the features recited in claim 25.

Appellant disagrees. The Examiner has failed to identify any one or more of the recited features in the applied documents. As a result, Appellant submits that the Examiner has failed to establish a *prima facie* case of obviousness.

Furthermore, Appellant submits that none of the above-noted applied documents discloses or suggests that at least one of lateral groove areas of the grooves are provided with the filling, coating, covering or strand and at least one of the sides of the tongues are provided with the coating or surface impregnation.

Again, the Examiner has acknowledged that AT '560 lacks the recited adhesive between the tongue and groove joints.

While Appellant does not dispute that DE '962 teaches a tongue and groove connection between panels as well as the factory application of glue to adjoining areas, the Examiner has failed to appreciate that the factory application of an adhesive is not a *per se* disclosure of a pre-applied adhesive or pre-applied substance because, as will be explained below, a pre-applied adhesive or substance is a type of adhesive or substance that is simply not disclosed or suggested by the applied documents.

The Examiner has also ignored the noted deficiencies of these documents. As explained above, AT '560 does not teach the use of any adhesive in a locking tongue

and groove joint. Moreover, DE '962 merely discloses a contact glue which requires that the mating surfaces "be pressed together with a considerable degree of pressure, making it impossible to additionally adjust the glued joint in the longitudinal direction for the purpose of closing a transverse joint." Thus, even if these documents were properly combinable (which Appellant disputes) they would nevertheless not disclose or suggest the unique combination of three features in the connection of flat structural panels: that is, (1) a tongue and groove connection with divergent sides; (2) that both the tongue and the groove have a locking mechanisms or elements; and (3) that either the tongue, or the groove, or both of these devices, have a pre-applied adhesive or an adhesive substance as defined above.

Appellant also disputes the relevancy of each of SCARLETT, KELLER, TURNER, or ROESCH, as these documents are completely silent with regard to a pre-applied adhesive layer or activator substance.

SCARLETT, for example, discloses the use of an adhesive joint between different portions of a structural beam. While this document discloses the use of a locking joint which is secured with adhesive, the Examiner has failed to appreciate that SCARLETT does not disclose the use of a pre-applied adhesive. SCARLETT, instead teaches using an adhesive which is applied at the time of assembly and which has the problem of a welling of adhesive during the closing of the joint (see col. 6, lines 24-28).

KELLER similarly discloses the use of an adhesive joint between different portions of a structural beam. While this document also discloses the use of a locking joint which is secured with adhesive, the Examiner has failed to appreciate that

P26741.A08

KELLER does not disclose the use of a pre-applied adhesive. KELLER, instead merely teaches coating the tongue and groove prior to their being joined with "a suitable adhesive" (see col. 2, lines 53-55).

TURNER merely discloses the use of an adhesive joint between wood members. While this document also discloses the use of a locking joint which is secured with adhesive, the Examiner has failed to appreciate that TURNER does not disclose the use of a pre-applied adhesive. TURNER, instead merely teaches applying "a suitable adhesive ... to both the abutment surfaces and the pieces of machined timber slidably engaged." See col. 4, lines 64-67.

Finally, ROESCH is non-analogous art. Whereas the invention relates to flat structural components or panels using a tongue and groove locking connection having a pre-applied adhesive or adhesive activator, ROESCH relates to a connection between plastic pipe parts which can be pre-applied with an adhesive (see Fig. 3).

Because the combination of the above-noted documents fails to disclose, or even suggest, at least the above-noted features of the instant invention, Appellant submits that no proper combination of these documents renders unpatentable the combination of features recited in at least dependent claim 25.

**REJECTION OF DEPENDENT CLAIM 32 UNDER 35 U.S.C. § 103 IS IN ERROR**

The rejection of claim 32 under 35 U.S.C. § 103(a) as being unpatentable over AT '560 in view of DE '962 when considering any of SCARLETT, KELLER and TURNER is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

P26741.A08

The additional rejection of claim 32 under 35 U.S.C. § 103(a) as being unpatentable over AT '560 in view of DE '962 when considering any of SCARLETT, KELLER and TURNER, and further in view of ROESCH is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

The additional rejection of claim 32 under 35 U.S.C. § 103(a) as being unpatentable over AT '560 in view of DE '962 when considering any of SCARLETT and KELLER, and further in view of any of ROBINS, SJOSTEDT, PARASIN and RYTHER is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

The additional rejection of claim 32 under 35 U.S.C. § 103(a) as being unpatentable over AT '560 in view of DE '962 when considering any of SCARLETT, KELLER and TURNER, and further in view of ROESCH, and further in view of ROBINS, SJOSTEDT, PARASIN and RYTHER is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

Claim 32 recites the configuration of claim 31 and wherein the pre-applied adhesive layer or the pre-applied layer of a substance which activates an adhesive is applied in an amount which is insufficient to cause any excess to well out onto a decorative surface of the flat structural panels when the flat structural panels are joined together. No proper combination of the above-noted documents discloses or suggests these additional features.

On pages 6-8 of the Final Office Action, the Examiner opines that the amount of adhesive which is applied would be obvious to one having ordinary skill in the art and alternatively that each of ROBINS, SJOSTEDT, PARASIN and RYTHER "recognize the undesirability of excess adhesive seepage and therefore teach to abate as much as possible any undesirable effects of any possible excess adhesive seepage". The Examiner also cites col. 4, lines 11-13 of ROBINS, col. 9, line 65 to col. 10, line 10 of SJOSTEDT, col. 3, lines 18-20 and claim 4 of PARASIN, and col. 1, lines 63-67, col. 2, lines 32-36, col. 3, lines 18-20, and col. 4, lines 33-35 of RYTHER.

Appellant disagrees. The Examiner has simply failed to identify any one or more of the recited features in the applied documents. As a result, Appellant submits that the Examiner has failed to establish a *prima facie* case of obviousness.

Furthermore, Appellant submits that none of the above-noted applied documents discloses or suggests that the pre-applied adhesive layer or the pre-applied layer of a substance which activates an adhesive is applied in an amount which is insufficient to cause any excess to well out onto a decorative surface of the flat structural panels when the flat structural panels are joined together.

Again, the Examiner has acknowledged that AT '560 lacks the recited adhesive between the tongue and groove joints.

While Appellant does not dispute that DE '962 teaches a tongue and groove connection between panels as well as the factory application of glue to adjoining areas, the Examiner has failed to appreciate that the factory application of an adhesive is not a *per se* disclosure of a pre-applied adhesive or pre-applied substance because, as will

be explained below, a pre-applied adhesive or substance is a type of adhesive or substance that is simply not disclosed or suggested by the applied documents.

The Examiner has also ignored the noted deficiencies of these documents. As explained above, AT '560 does not teach the use of any adhesive in a locking tongue and groove joint. Moreover, DE '962 merely discloses a contact glue which requires that the mating surfaces "be pressed together with a considerable degree of pressure, making it impossible to additionally adjust the glued joint in the longitudinal direction for the purpose of closing a transverse joint." Thus, even if these documents were properly combinable (which Appellant disputes) they would nevertheless not disclose or suggest the unique combination of three features in the connection of flat structural panels: that is, (1) a tongue and groove connection with divergent sides; (2) that both the tongue and the groove have a locking mechanisms or elements; and (3) that either the tongue, or the groove, or both of these devices, have a pre-applied adhesive or an adhesive substance as defined above.

Appellant also disputes the relevancy of each of SCARLETT, KELLER, TURNER, or ROESCH, as these documents are completely silent with regard to a pre-applied adhesive layer or activator substance.

SCARLETT, for example, discloses the use of an adhesive joint between different portions of a structural beam. While this document discloses the use of a locking joint which is secured with adhesive, the Examiner has failed to appreciate that SCARLETT does not disclose the use of a pre-applied adhesive. SCARLETT, instead teaches using an adhesive which is applied at the time of assembly and which has the

problem of a welling of adhesive during the closing of the joint (see col. 6, lines 24-28).

KELLER similarly discloses the use of an adhesive joint between different portions of a structural beam. While this document also discloses the use of a locking joint which is secured with adhesive, the Examiner has failed to appreciate that KELLER does not disclose the use of a pre-applied adhesive. KELLER, instead merely teaches coating the tongue and groove prior to their being joined with "a suitable adhesive" (see col. 2, lines 53-55).

TURNER merely discloses the use of an adhesive joint between wood members. While this document also discloses the use of a locking joint which is secured with adhesive, the Examiner has failed to appreciate that TURNER does not disclose the use of a pre-applied adhesive. TURNER, instead merely teaches applying "a suitable adhesive ... to both the abutment surfaces and the pieces of machined timber slidably engaged." See col. 4, lines 64-67.

ROESCH is non-analogous art. Whereas the invention relates to flat structural components or panels using a tongue and groove locking connection having a pre-applied adhesive or adhesive activator, ROESCH relates to a connection between plastic pipe parts which can be pre-applied with an adhesive (see Fig. 3).

ROBINS is also non-analogous art and fails to cure the deficiencies of the above-noted documents. ROBINS relates to an adhesive connection between tube parts of a waveguide (see col. 4, lines 7-13). Furthermore, whereas the invention recites the application of an amount which is insufficient to cause any excess to well out onto a decorative surface of the flat structural panels when the flat structural panels are

joined together, ROBINS specifically discloses to apply an amount which "completely fills the void between the butt joint sections 12, 12' (see col. 4, lines 8-10).

SJOSTEDT is also non-analogous art and fails to cure the deficiencies of the above-noted documents. SJOSTEDT relates to an adhesive connection between parts of a shipping container (see Abstract). Furthermore, whereas the invention recites the application of an amount which is insufficient to cause any excess to well out onto a decorative surface of the flat structural panels when the flat structural panels are joined together, SJOSTEDT specifically discloses that "[e]xcess adhesive material A in the joint 292 can be relieved into the spaces or the cavity 302 so as not to interfere with accurate fit-up of adjoining side panels" (see col. 10, lines 4-8).

PARASIN also fails to cure the deficiencies of the above-noted documents. Whereas the invention recites the application of an amount which is insufficient to cause any excess to well out onto a decorative surface of the flat structural panels when the flat structural panels are joined together, PARASIN specifically discloses that "[w]hen assembling joints, glue may be applied to the tongue and groove profiles, the application of glue is optional. The spaces 42 between the tongue head and the groove head chamfered surfaces define a gap to accommodate excess glue." See col. 3, lines 16-20.

RYTHER is non-analogous and also fails to cure the deficiencies of the above-noted documents. Again, whereas the invention recites the application of an amount which is insufficient to cause any excess to well out onto a decorative surface of the flat structural panels when the flat structural panels are joined together, RYTHER merely



P26741.A08

relates to an adhesive connection between ribs of a structural panel (see Abstract) and specifically discloses a joint which accommodates "any excess glue forced out by the joining process" (see col. 3, lines 13-20 and col. 4, lines 23-35).

Thus, the Examiner is not correct that any of the above-noted documents, and in particular, each of ROBINS, SJOSTEDT, PARASIN and RYTHER, disclose or suggest that the pre-applied adhesive layer or the pre-applied layer of a substance which activates an adhesive is applied in an amount which is insufficient to cause any excess to well out onto a decorative surface of the flat structural panels when the flat structural panels are joined together.

Because the combination of the above-noted documents fails to disclose, or even suggest, at least the above-noted features of the instant invention, Appellant submits that no proper combination of these documents renders unpatentable the combination of features recited in at least dependent claim 32.

**REJECTION OF DEPENDENT CLAIM 33 UNDER 35 U.S.C. § 103 IS IN ERROR**

The rejection of claim 33 under 35 U.S.C. § 103(a) as being unpatentable over AT '560 in view of DE '962 when considering any of SCARLETT, KELLER and TURNER is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

The additional rejection of claim 33 under 35 U.S.C. § 103(a) as being unpatentable over AT '560 in view of DE '962 when considering any of SCARLETT, KELLER and TURNER, and further in view of ROESCH is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be

P26741.A08

remanded to the Examiner.

The additional rejection of claim 33 under 35 U.S.C. § 103(a) as being unpatentable over AT '560 in view of DE '962 when considering any of SCARLETT and KELLER, and further in view of any of ROBINS, SJOSTEDT, PARASIN and RYTHER is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

The additional rejection of claim 33 under 35 U.S.C. § 103(a) as being unpatentable over AT '560 in view of DE '962 when considering any of SCARLETT, KELLER and TURNER, and further in view of ROESCH, and further in view of ROBINS, SJOSTEDT, PARASIN and RYTHER is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

Claim 33 recites the configuration of claim 1 and that the pre-applied adhesive layer or the pre-applied layer of a substance which activates an adhesive is applied in an amount which is insufficient to cause any excess to well out onto a surface of the flat structural components when the flat structural components are joined together. No proper combination of the above-noted documents discloses or suggests these additional features.

On pages 6-8 of the Final Office Action, the Examiner opines that the amount of adhesive which is applied would be obvious to one having ordinary skill in the art and alternatively that each of ROBINS, SJOSTEDT, PARASIN and RYTHER "recognize the undesirability of excess adhesive seepage and therefore teach to abate as much as

P26741.A08

possible any undesirable effects of any possible excess adhesive seepage". The Examiner also cites col. 4, lines 11-13 of ROBINS, col. 9, line 65 to col. 10, line 10 of SJOSTEDT, col. 3, lines 18-20 and claim 4 of PARASIN, and col. 1, lines 63-67, col. 2, lines 32-36, col. 3, lines 18-20, and col. 4, lines 33-35 of RYTHER.

Appellant disagrees. The Examiner has simply failed to identify any one or more of the recited features in the applied documents. As a result, Appellant submits that the Examiner has failed to establish a *prima facie* case of obviousness.

Furthermore, Appellant submits that none of the above-noted applied documents discloses or suggests that the pre-applied adhesive layer or the pre-applied layer of a substance which activates an adhesive is applied in an amount which is insufficient to cause any excess to well out onto a surface of the flat structural components when the flat structural components are joined together.

Again, the Examiner has acknowledged that AT '560 lacks the recited adhesive between the tongue and groove joints.

While Appellant does not dispute that DE '962 teaches a tongue and groove connection between panels as well as the factory application of glue to adjoining areas, the Examiner has failed to appreciate that the factory application of an adhesive is not a *per se* disclosure of a pre-applied adhesive or pre-applied substance because, as will be explained below, a pre-applied adhesive or substance is a type of adhesive or substance that is simply not disclosed or suggested by the applied documents.

The Examiner has also ignored the noted deficiencies of these documents. As explained above, AT '560 does not teach the use of any adhesive in a locking tongue

and groove joint. Moreover, DE '962 merely discloses a contact glue which requires that the mating surfaces "be pressed together with a considerable degree of pressure, making it impossible to additionally adjust the glued joint in the longitudinal direction for the purpose of closing a transverse joint." Thus, even if these documents were properly combinable (which Appellant disputes) they would nevertheless not disclose or suggest the unique combination of three features in the connection of flat structural panels: that is, (1) a tongue and groove connection with divergent sides; (2) that both the tongue and the groove have a locking mechanisms or elements; and (3) that either the tongue, or the groove, or both of these devices, have a pre-applied adhesive or an adhesive substance as defined above.

Appellant also disputes the relevancy of each of SCARLETT, KELLER, TURNER, or ROESCH, as these documents are completely silent with regard to a pre-applied adhesive layer or activator substance.

SCARLETT, for example, discloses the use of an adhesive joint between different portions of a structural beam. While this document discloses the use of a locking joint which is secured with adhesive, the Examiner has failed to appreciate that SCARLETT does not disclose the use of a pre-applied adhesive. SCARLETT, instead teaches using an adhesive which is applied at the time of assembly and which has the problem of a welling of adhesive during the closing of the joint (see col. 6, lines 24-28).

KELLER similarly discloses the use of an adhesive joint between different portions of a structural beam. While this document also discloses the use of a locking joint which is secured with adhesive, the Examiner has failed to appreciate that

P26741.A08

KELLER does not disclose the use of a pre-applied adhesive. KELLER, instead merely teaches coating the tongue and groove prior to their being joined with "a suitable adhesive" (see col. 2, lines 53-55).

TURNER merely discloses the use of an adhesive joint between wood members. While this document also discloses the use of a locking joint which is secured with adhesive, the Examiner has failed to appreciate that TURNER does not disclose the use of a pre-applied adhesive. TURNER, instead merely teaches applying "a suitable adhesive ... to both the abutment surfaces and the pieces of machined timber slidably engaged." See col. 4, lines 64-67.

ROESCH is non-analogous art. Whereas the invention relates to flat structural components or panels using a tongue and groove locking connection having a pre-applied adhesive or adhesive activator, ROESCH relates to a connection between plastic pipe parts which can be pre-applied with an adhesive (see Fig. 3).

ROBINS is also non-analogous art and fails to cure the deficiencies of the above-noted documents. ROBINS relates to an adhesive connection between tube parts of a waveguide (see col. 4, lines 7-13). Furthermore, whereas the invention recites the application of an amount which is insufficient to cause any excess to well out onto a decorative surface of the flat structural panels when the flat structural panels are joined together, ROBINS specifically discloses to apply an amount which "completely fills the void between the butt joint sections 12, 12' (see col. 4, lines 8-10).

SJOSTEDT is also non-analogous art and fails to cure the deficiencies of the above-noted documents. SJOSTEDT relates to an adhesive connection between parts

P26741.A08

of a shipping container (see Abstract). Furthermore, whereas the invention recites the application of an amount which is insufficient to cause any excess to well out onto a decorative surface of the flat structural panels when the flat structural panels are joined together, SJOSTEDT specifically discloses that "[e]xcess adhesive material A in the joint 292 can be relieved into the spaces or the cavity 302 so as not to interfere with accurate fit-up of adjoining side panels" (see col. 10, lines 4-8).

PARASIN also fails to cure the deficiencies of the above-noted documents. Whereas the invention recites the application of an amount which is insufficient to cause any excess to well out onto a decorative surface of the flat structural panels when the flat structural panels are joined together, PARASIN specifically discloses that "[w]hen assembling joints, glue may be applied to the tongue and groove profiles, the application of glue is optional. The spaces 42 between the tongue head and the groove head chamfered surfaces define a gap to accommodate excess glue." See col. 3, lines 16-20.

RYTHER is non-analogous and also fails to cure the deficiencies of the above-noted documents. Again, whereas the invention recites the application of an amount which is insufficient to cause any excess to well out onto a decorative surface of the flat structural panels when the flat structural panels are joined together, RYTHER merely relates to an adhesive connection between ribs of a structural panel (see Abstract) and specifically discloses a joint which accommodates "any excess glue forced out by the joining process" (see col. 3, lines 13-20 and col. 4, lines 23-35).

Thus, the Examiner is not correct that any of the above-noted documents, and in particular, each of ROBINS, SJOSTEDT, PARASIN and RYTHER, disclose or suggest that the pre-applied adhesive layer or the pre-applied layer of a substance which activates an adhesive is applied in an amount which is insufficient to cause any excess to well out onto a surface of the flat structural components when the flat structural components are joined together.

Because the combination of the above-noted documents fails to disclose, or even suggest, at least the above-noted features of the instant invention, Appellant submits that no proper combination of these documents renders unpatentable the combination of features recited in at least dependent claim 33.

**REJECTION OF DEPENDENT CLAIM 35 UNDER 35 U.S.C. § 103 IS IN ERROR**

The rejection of claim 35 under 35 U.S.C. § 103(a) as being unpatentable over AT '560 in view of DE '962 when considering any of SCARLETT, KELLER and TURNER is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

The additional rejection of claim 35 under 35 U.S.C. § 103(a) as being unpatentable over AT '560 in view of DE '962 when considering any of SCARLETT, KELLER and TURNER, and further in view of ROESCH is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

The additional rejection of claim 35 under 35 U.S.C. § 103(a) as being unpatentable over AT '560 in view of DE '962 when considering any of SCARLETT and

KELLER, and further in view of any of ROBINS, SJOSTEDT, PARASIN and RYTER is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

The additional rejection of claim 35 under 35 U.S.C. § 103(a) as being unpatentable over AT '560 in view of DE '962 when considering any of SCARLETT, KELLER and TURNER, and further in view of ROESCH, and further in view of ROBINS, SJOSTEDT, PARASIN and RYTER is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

Claim 35 recites the configuration of claim 34 and that the pre-applied adhesive layer or the pre-applied layer of a substance which activates an adhesive is applied in an amount which is insufficient to cause any excess to well out onto a surface of the flat structural components when the flat structural components are joined together. No proper combination of the above-noted documents discloses or suggests these additional features.

Since this claim recites substantially the same features as claim 33, Appellant hereby incorporates by reference the arguments noted above with regard to claim 33.

Because the combination of the above-noted documents fails to disclose, or even suggest, at least the above-noted features of the instant invention, Appellant submits that no proper combination of these documents renders unpatentable the combination of features recited in at least dependent claim 35.



**REJECTION OF DEPENDENT CLAIM 36 UNDER 35 U.S.C. § 103 IS IN ERROR**

The rejection of claim 36 under 35 U.S.C. § 103(a) as being unpatentable over AT '560 in view of DE '962 when considering any of SCARLETT, KELLER and TURNER, and further in view of ROESCH is in error, the decision of the Examiner to reject this claim should be reversed, and the application should be remanded to the Examiner.

Claim 36 recites the configuration of claim 34 and that the pre-applied first layer comprises one component of a two-component glue and wherein the pre-applied second layer comprises another component of the two-component glue. No proper combination of the above-noted documents discloses or suggests these additional features.

On page 6 of the Final Office Action, the Examiner opines that the combination of the applied documents would result in the panels having the recited features.

Appellant disagrees. The Examiner has simply failed to identify any one or more of the recited features in the applied documents. As a result, Appellant submits that the Examiner has failed to establish a *prima facie* case of obviousness.

Furthermore, Appellant submits that none of the above-noted applied documents discloses or suggests that the pre-applied first layer comprises one component of a two-component glue and wherein the pre-applied second layer comprises another component of the two-component glue.

Again, the Examiner has acknowledged that AT '560 lacks the recited adhesive between the tongue and groove joints.

While Appellant does not dispute that DE '962 teaches a tongue and groove connection between panels as well as the factory application of glue to adjoining areas, the Examiner has failed to appreciate that the factory application of an adhesive is not a *per se* disclosure of a pre-applied adhesive or pre-applied substance because, as will be explained below, a pre-applied adhesive or substance is a type of adhesive or substance that is simply not disclosed or suggested by the applied documents.

The Examiner has also ignored the noted deficiencies of these documents. As explained above, AT '560 does not teach the use of any adhesive in a locking tongue and groove joint. Moreover, DE '962 merely discloses a contact glue which requires that the mating surfaces "be pressed together with a considerable degree of pressure, making it impossible to additionally adjust the glued joint in the longitudinal direction for the purpose of closing a transverse joint." Thus, even if these documents were properly combinable (which Appellant disputes) they would nevertheless not disclose or suggest the unique combination of three features in the connection of flat structural panels: that is, (1) a tongue and groove connection with divergent sides; (2) that both the tongue and the groove have a locking mechanisms or elements; and (3) that either the tongue, or the groove, or both of these devices, have a pre-applied adhesive or an adhesive substance as defined above.

Appellant also disputes the relevancy of each of SCARLETT, KELLER, TURNER, or ROESCH, as these documents are completely silent with regard to a pre-applied adhesive layer or activator substance.

SCARLETT, for example, discloses the use of an adhesive joint between different portions of a structural beam. While this document discloses the use of a locking joint which is secured with adhesive, the Examiner has failed to appreciate that SCARLETT does not disclose the use of a pre-applied adhesive. SCARLETT, instead teaches using an adhesive which is applied at the time of assembly and which has the problem of a welling of adhesive during the closing of the joint (see col. 6, lines 24-28).

KELLER similarly discloses the use of an adhesive joint between different portions of a structural beam. While this document also discloses the use of a locking joint which is secured with adhesive, the Examiner has failed to appreciate that KELLER does not disclose the use of a pre-applied adhesive. KELLER, instead merely teaches coating the tongue and groove prior to their being joined with "a suitable adhesive" (see col. 2, lines 53-55).

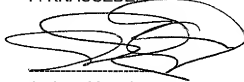
TURNER merely discloses the use of an adhesive joint between wood members. While this document also discloses the use of a locking joint which is secured with adhesive, the Examiner has failed to appreciate that TURNER does not disclose the use of a pre-applied adhesive. TURNER, instead merely teaches applying "a suitable adhesive ... to both the abutment surfaces and the pieces of machined timber slidably engaged." See col. 4, lines 64-67.

Finally, ROESCH is non-analogous art. Whereas the invention relates to flat structural components or panels using a tongue and groove locking connection having a pre-applied adhesive or adhesive activator, ROESCH relates to a connection between plastic pipe parts which can be pre-applied with an adhesive (see Fig. 3).

**(VIII) CONCLUSION**

Each of claims 1-3, 21-25 and 31-36 are patentable under 35 U.S.C. § § 112, 102(b) and 103(a). Specifically, the applied art of record, even if properly combined, fails to disclose or suggest the unique combination of features recited in Appellant's claims 1-3, 21-25 and 31-36. Accordingly, Appellant respectfully requests that the Board reverse the decision of the Examiner to reject claims 1-3, 21-25 and 31-36 under 35 U.S.C. § 103(a), and remand the application to the Examiner for withdrawal of the above-noted rejections.

Respectfully submitted,  
F. KNAUSEDER

A handwritten signature in black ink, appearing to read 'Andrew M. Calderon', written over a horizontal line.

Andrew M. Calderon  
Reg. No. 38,093

March 16, 2006  
GREENBLUM & BERNSTEIN, P.L.C.  
1950 Roland Clarke Place  
Reston, VA 20191  
703-716-1191

Attachments: Claims Appendix, Evidence Appendix, and Related Proceedings Appendix

CLAIMS ON APPEAL

1. A configuration for combining flat structural components of relatively low thickness along their narrow circumferential sides, where connecting members that interact on the tongue-and-groove principle are provided at the areas being connected, and the sides of the groove diverge from a groove base and converge at an end away from the groove base at an angle that is greater than an angle of divergence, where an opening width of the groove is greater than a foremost area of the tongue in a direction of insertion, which tongue exhibits wedge-shaped areas that diverge from front to back at the same angle as the sides of the groove, each of which wedge-shaped areas exhibits an undercut in a back area of the tongue that conforms to the groove cross-section, while the undercut's borders, adjoining the wedge-shaped areas, converge at the same angle as the groove sides toward a connecting bridge, whereby a locking mechanism is integrated into the tongue and the groove, wherein a pre-applied adhesive layer, or a pre-applied layer of a substance which activates an adhesive, is applied off-site and is present on the groove at least in the area of its divergent sides or on the tongue at least in the area of its divergent wedge-shaped area, or on both areas.

2. A configuration according to claim 1, wherein:

whereby locking elements are on at least one side of the groove and at least one side of the tongue, the locking elements conform to each other and extend over the entire length of the groove and the tongue are provided in the form of an indentation or recess and a projection, in order to hold connected components in a joined position;

the groove is formed directly in the component or is worked out of the same in order to provide for a connection of the components;

the tongue forms a single piece with the component or is worked out of the same;

a width of the groove increases from inside outward;

a thickness of the tongue decreases in the direction of an unattached end;

P26741.A08

the projection on the tongue is triangular and exhibits a shorter back surface and a longer front surface;

the recess in the groove exhibits a shorter contact surface that lies at a distance from the groove base and that rests against the shorter back surface of the projection;

at least one of the two groove sides flex elastically and outwards relative to the other groove side so that in a locked position the tongue is held by the groove sides with a squeezing action or is inserted into the groove while the groove sides bend elastically;

an angle between the longer front surface and the shorter back surface is  $100^{\circ}$  to  $140^{\circ}$ ;

two legs of the groove are equally as long as the respective longer front surface and the shorter back surface;

the recess in the groove exhibits a contact area close to the groove base that in the locked position at least partially rests against the longer front surface;

the longer front surface close to the groove base, or the section of the tongue area received by the recess, is four to eight times as long as the shorter back surface; and

the tongue is provided with the layer of adhesive or with the adhesive with an activating substance on at least the contact surface of the groove walls close to at least one of the groove base and on the longer front surface of the tongue.

3. A configuration according to claim 1, wherein:

the grooves of the individual panels are provided with a filling, coating, covering or strand, comprising a latent adhesive material that becomes active after appropriate activation, and

the tongues are provided with a coating or surface impregnation, a covering or strand is applied to the panels and moistens them shortly before they are joined together and comprises an activator which induces adhesion.

P26741.A08

21. A configuration according to claim 2, wherein the shorter back surface and the longer front surface form two triangular sides.

22. A configuration according to claim 21, wherein the two triangular sides are between  $110^{\circ}$  to  $130^{\circ}$ .

23. A configuration according to claim 2, wherein the longer front surface is five to seven times as long as the shorter back surface.

24. A configuration according to claim 2, wherein both of the two groove sides flex elastically and outwards relative to the each other.

25. A configuration according to claim 3, wherein:

at least one of lateral groove areas of the grooves are provided with the filling, coating, covering or strand, and

at least one of the sides of the tongues are provided with the coating or surface impregnation.

31. A configuration for combining flat structural panels, comprising:

a first panel having a groove with a groove opening and a groove base, the groove further having a first locking element and divergent sides,

a second panel having a tongue with a second locking element which interacts with the first locking element when the first panel and the second panel are joined, the tongue having a divergent wedge shape;

a pre-applied adhesive layer or a pre-applied layer of a substance which activates an adhesive applied off-site and being present on the groove at least in the area of the divergent sides or on the tongue at least in the area of the divergent wedge-shaped area, or on both areas, wherein

one of the first locking element and the second locking element is a recess and the other of the first locking element and the second locking element is a projection, the projection and the recess have a triangular cross-section,

a triangular side closer to the groove opening is shorter and more inclined than a triangular side closer to the groove base such that when the tongue is inserted into the groove, the longer side of the projection slides on a section formed prior to the shorter triangular side until the projection has overcome an inner edge of the section and is received by the recess.

32. A configuration according to claim 31, wherein the pre-applied adhesive layer or the pre-applied layer of a substance which activates an adhesive is applied in an amount which is insufficient to cause any excess to well out onto a decorative surface of the flat structural panels when the flat structural panels are joined together.

33. A configuration according to claim 1, wherein the pre-applied adhesive layer or the pre-applied layer of a substance which activates an adhesive is applied in an amount which is insufficient to cause any excess to well out onto a surface of the flat structural components when the flat structural components are joined together.

34. A configuration for combining flat structural panels, comprising:  
a first panel having a groove comprising a groove opening, a groove base, at least one locking element, and divergent sides extending from the groove base,  
a second panel having a tongue comprising a divergent wedge shape and at least one locking element which interacts with the at least one locking element of the groove when the first panel and the second panel are joined by inserting the tongue into the groove; and



a pre-applied first layer arranged on at least one surface of the groove at least in an area of the divergent sides and a pre-applied second layer arranged on at least one surface of the tongue at least in an area of the divergent wedge shape,

wherein each of the pre-applied first and second layers comprises an adhesive layer or a pre-applied layer of a substance which activates an adhesive.

35. A configuration according to claim 34, wherein the pre-applied adhesive layer or the pre-applied layer of a substance which activates an adhesive is applied in an amount which is insufficient to cause any excess to well out onto a surface of the flat structural components when the flat structural components are joined together.

36. A configuration according to claim 34, wherein the pre-applied first layer comprises one component of a two-component glue and wherein the pre-applied second layer comprises another component of the two-component glue.

P26741.A08

EVIDENCE APPENDIX

This section lists evidence submitted pursuant to 35 U.S.C. §§1.130, 1.131, or 1.132, or any other evidence entered by the Examiner and relied upon by Appellant in this appeal, and provides for each piece of evidence a brief statement setting forth where in the record that evidence was entered by the Examiner. Copies of each piece of evidence are provided as required by 35 U.S.C. §41.37(c)(ix).

NO.	EVIDENCE	BRIEF STATEMENT SETTING FORTH WHERE IN THE RECORD THE EVIDENCE WAS ENTERED BY THE EXAMINER
1	N/A	N/A

P26741.A08

RELATED PROCEEDINGS APPENDIX

Pursuant to 35 U.S.C. §41.37(c)(x), copies of the following decisions rendered by a court of the Board in any proceeding identified above under 35 U.S.C. §41.37(c)(1)(ii) are enclosed herewith.

NO.	TYPE OF PROCEEDING	REFERENCE NO.	DATE
1	N/A	N/A	N/A